



Approval #

980030-U (Replaces 920073-U/
Revised)

Safety & Buildings Division

201 West Washington Avenue
P.O. Box 2689
Madison, WI 53701-2689

Wisconsin Material Approval

Material

Petro Gard VI and Petro Gard X Dike Liners

Manufacturer

MPC Containment Systems, Ltd.
4834 South Oakley
Chicago, Illinois 60609

SCOPE OF EVALUATION

The Petro Gard VI and Petro Gard X liners manufactured by MPC Containment, Ltd. have been evaluated for use as liners of dikes for aboveground tank systems, in accordance with **section ILHR 10.345 (1)(e)** of the current edition of the Wisconsin Flammable and Combustible Liquids Code.

DESCRIPTION AND USE

Petro Gard VI and Petro Gard X liners are coated fabric liners of 30 and 40 mil thickness, respectively.

Prior to installation, surfaces to be lined are made smooth and free of debris, roots, and angular or sharp rocks. The subgrade is compacted to provide a firm unyielding foundation without sudden or sharp changes in grade.

Seam construction is a 2-inch overlap weld done in the factory with hot air or dielectric seaming. Field welds are made with 2-inch overlap welds using hot air to fuse the material together. Seams are tested using a vacuum box to test for the presence of bubbles or an air lance directed at the seam to test for void. Liner penetrations are accomplished with factory-prefabricated liner tubes and formed components. Field connection of liner sleeves are made with factory-supplied rigid compression fittings and/or by thermal welding; all thermal field welding is performed by authorized personnel trained and certified by MPC Containment Systems, Ltd.

TESTS AND RESULTS

Physical properties of Petro Gard VI and X were evaluated before and after immersion in ASTM test fuel B. Specimens were tested before immersion and immediately after 7 days of immersion. Petro Gard VI was tested in a similar manner with ethanol. Samples of Petro Gard VI and X were weathered in a Carbon-Arc weatherometer for more than 10,000 hours and 1,500 hours, respectively, in accordance with Federal Test Method Standard 191A, Method 5804. The physical property changes during all tests were within acceptable limits established by the Department.

LIMITATIONS OF APPROVAL

The liners shall be installed in accordance with the manufacturer's recommendations and **s. ILHR 10.345 (1)(e)** under the supervision of a qualified representative of the manufacturer. Operation and maintenance recommendations of the manufacturer shall be complied with as well.

The Petro Gard VI and Petro Gard X liners are approved for use with petroleum products, including gasoline, kerosene, and diesel fuel oils represented by ASTM test fuel B.

The Petro Gard VI liner is approved for use with ethanol.

The Petro Gard VI and Petro Gard X liners are approved for use in 30 and 40 mil thicknesses, respectively, in place of the thickness specified in **s. ILHR 10.345 (1)(e)2**.

The Petro Gard X liner shall be covered by a 4-inch layer of soil or pea gravel, and the Petro Gard VI liner may be left exposed, in lieu of the soil cover specified in **s. ILHR 10.345 (1)(e)2**. All cover material shall be free of large rocks, angular stones, sticks, or other materials that may puncture the liner.

Releases of product shall be addressed in accordance with the procedures specified in **Parts 5 and 6 of subchapter VI of ch. ILHR 10**. The liner or portions of the liner that came in contact with product shall be replaced when determined to be necessary as a part of the release remediation.

Tank foundation designs and any discontinuities in the liner within the diked area shall be shown on plans and include the method for assuring an adequate product-tight barrier.

USE OF APPROVAL

This approval will be valid through December 31, 2002, unless manufacturing modifications are made to the products or a reevaluation is deemed necessary by the Department. The Wisconsin Material Approval Number must be provided when plans that include these products are submitted for review.

DISCLAIMER

The Department is in no way endorsing or advertising these products. This approval addresses only the specified applications for the products and does not waive any code requirement unless specified herein.

Reviewed by: _____

Approval Date: _____ By: _____

Sam Rockweiler, P.E.
Code Development Section
Program Development Bureau

File Reference: 980030-U